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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/694,039	10/27/2003	Neal J. Seidl	039199-9541-00	3877

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EXAMINER

TRAN, KHAI

ART UNIT	PAPER NUMBER
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2611

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/19/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/694,039	SEIDL, NEAL J.	
	Examiner	Art Unit	
	KHAI TRAN	2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 February 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) 12-33 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of group I (claims 1-11) in the reply filed on 2/28/2007 is acknowledged. Claims 12-33 are cancelled.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-5 are rejected under 35 U.S.C. 102(e) as being anticipated by Kim et al (US 2004/0128608 A1).

Regarding claims 1-2, Kim et al disclose A communication system comprising: a first device transmitting a modulated signal (a transmitter as shown in Figure 2); and a second device receiving the modulated signal (a receiver as shown in Figure 11), the second device including a first demodulator (211) receiving the modulated signal, producing a first demodulated output and implementing a first demodulation technique (a Binary Phase Shift Keying (BPSK)), a second demodulator (212) receiving the modulated signal, producing a second demodulated output and implementing a second demodulation technique (Frequency Shift Keying (FSK)), the second demodulation

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technique differing from the first demodulation technique, and an error detection module (a data determining unit 220) performing bit error detection based on the first demodulated output and the second modulated output (see [0038] shows that The data determining unit 220 receives 2-bit values of the address data demodulated by the demodulating unit 210 and interprets the address data. If the address data of two bits is indicated by using the two modulation techniques of BPSK and FSK, as shown in FIGS. 3A and 3B, then two-bit values of the address data, for example, "00," "01," "10," and "11" are input to the data determining unit 220, from both the first demodulator 211 and the second demodulator 212. If the two-bit values input to the first and second modulators 211 and 212 are different from each other, the data determining unit 220 generates the eraser flag signal indicating that an error exists in a specific location of the data, and outputs one of the two-bit values with the eraser flag signal to the error correction decoding unit 230).

Regarding claim 3, Kim et al disclose wherein the modulated signal is modulated using a packetized protocol (see [0034] shows that The error correction coding unit 120 receives the address data from the address data generating unit 110 and performs error correction coding (ECC), e.g., Reed-Solomon coding. For example, if the address data is coded into an RS code (15, 9, 7), the coded address data is formed from a total of fifteen symbols including six parity symbols and nine data symbols added thereto. When the address data coded into the RS code (15, 9, 7) is decoded, at least three error data symbols are corrected. If there is an eraser flag signal in the

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error data, a maximum number of corrected error data symbols is six, the same as the number of parity symbols.

Regarding claim 4, Kim et al disclose wherein the error detection module performs bit error detection by comparing the first demodulator output with the second demodulator output on a packet-by-packet basis (see [0054]).

Regarding claim 5, Kim et al disclose wherein the first device implements a frequency shift keying modulation technique (see [0040]).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kim et al (US 2004/0128608 A1) in view of Harima (U.S. Pat. 5,805,018).

Regarding claim 6, Kim et al fail to explicitly disclose the first device using a non-minimum shift keying nominal modulation index.

Harima discloses a non-minimum shift keying nominal modulation index for the first device (col.1, lines 7-14). It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the non-minimum shift keying nominal modulation index for the first device as taught by Harima into the teachings of Kim et al in order to perform a high speed demodulation.

Claim Rejections - 35 USC § 103

6. Claims 7-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim et al.

Claims 7-10 are similar to claims 1-4 except a step of wirelessly transfer the modulated signal to the receiver for processing the received signal. However, the use of the transmitter to transmit wirelessly signal to the receiver is well known in the digital communication system. It would have been obvious to one having ordinary skill in the art the time the invention was made to transfer signal from the transmitter to the receiver in wireless in order to eliminate the wire connection between the two devices.

Claim 11 is similar to claims 1 and 5. Therefore, claim 11 is rejected under a similar rationale.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Otani (U.S. Pat. 4,628,507) discloses a bit error detection circuit for PSK-modulated carrier wave.

Yellin et al (US 2002/0194567 A1) disclose a low complexity channel decoders.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to KHAIR TRAN whose telephone number is (571) 272-3019. The examiner can normally be reached on 7:00AM - 4:30PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JAY PATEL can be reached on (571) 272-2988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



KHAI TRAN
Primary Examiner
Art Unit 2611

KT
March 15, 2007